

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 August 2001 (23.08.2001)

PCT

(10) International Publication Number
WO 01/61527 A2

(51) International Patent Classification⁷: G06F 17/00

(21) International Application Number: PCT/GB01/00642

(22) International Filing Date: 16 February 2001 (16.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0003509.7 16 February 2000 (16.02.2000) GB

(71) Applicant and

(72) Inventor (for US only): COLLINS, John, Raymond
[GB/GB]; The Barn, Mill Lane, Castleton, Cardiff CF3
2UT (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

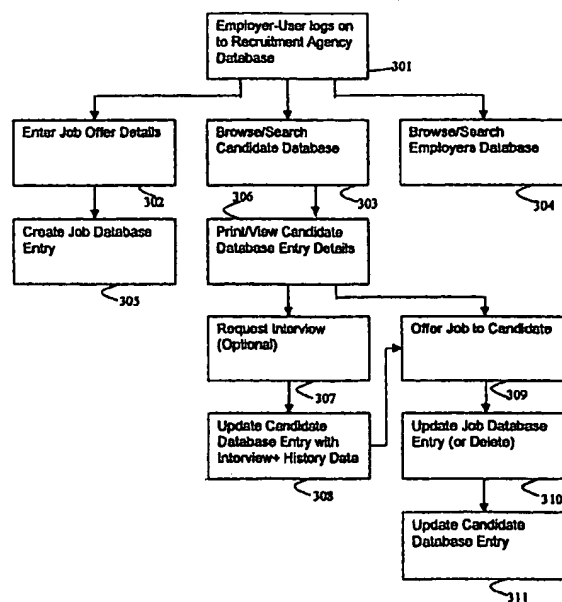
Published:

— without international search report and to be republished upon receipt of that report

(74) Agents: NEWELL, William, Joseph et al.; Wynne-Jones, Laine & James, 22 Rodney Road, Cheltenham, Gloucestershire GL50 1JJ (GB).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMMUNICATIONS NETWORK BASED RECRUITMENT



(57) Abstract: A computer system maintained by a recruitment agency which stores a database including a data relating to the history of candidates in connection with the recruitment agency. Details such as information regarding any contact between the candidate and the recruitment agency, interviews, etc. can be stored. Video data of an interview can also be stored and be made accessible to other recruitment agencies or potential employers via the Internet. The system is also capable of converting skill codes so that data from other databases can be used.

Communications Network Based Recruitment

The present invention relates to employment recruitment using a communications network.

Many Internet based recruitment agencies have been
5 set up in recent years, for example, www.monster.co.uk and
www.totaljobs.com. Although these agencies provide
searchable databases of jobs and candidates, the
information available to potential employers is somewhat
limited. For example, potential employers may be able to
10 view resumes of potential employees but normally either
interview the candidates themselves before offering the
job, or request that the recruitment agency carry out the
interview. Interviewing the candidates can be a time
consuming process for the potential employers but having
15 the recruitment agency carry out the interview means that
they must rely entirely on the opinion of the agency on
the suitability of the candidate. Employers may also be
charged an additional fee for interviewing by the agency.
Similarly, if references from previous employers are
20 required then these must be obtained by the potential
employers themselves or via the recruitment agency, which
again can cause delays.

In some circumstances, for example when the vacancy
is a temporary position, a potential employer may need the
25 position to be filled in a very short period of time. In
cases such as these, the delays caused by interviews and
obtaining references may be unacceptable. On the other

hand, many potential employers do not like to depend completely on the recruitment agency for determining the suitability of a candidate for a position without having gained some personal impression of the candidate and
5 viewing his/her references.

Some employers would also like to have some information about the number of interviews and applications which a potential applicant has made, which can help them gain some insight whether the candidate is
10 likely to be dependable or loyal.

An object of the present invention is to provide potential employers with detailed information regarding potential employees over a communications network. This is intended to be less time consuming than existing
15 methods, but still allows potential employers to have considerable reassurance regarding the suitability of the candidate.

According to a first aspect of the present invention there is provided a computer system for being maintained
20 by a recruitment agency, the system including a processor and a data store accessible to one or more employer-user via a communications network and configured to store:

a candidate database wherein each entry relates to a potential candidate for employment,

25 wherein all or some of the entries in the candidate database includes data relating to the history of the candidate in connection with the recruitment agency.

Although recruitment agencies are commonly responsible for interviewing or assessing candidates and for having detailed discussions of the requirements of potential employers, in this specification a "recruitment agency" is an individual or group who maintains a database containing data relating to potential employers and potential employees. By "maintain" it is not necessarily meant that the database is stored on a computer system owned by the recruitment agency, as it could be the case that the database and operating software are stored on a server provided by an Internet service provider; rather it is meant that the database is managed by the recruitment company and that they have a high level of control over what data is read and written from/to the database and can control access to the database by other users.

Preferably, the data store is also accessible to candidate-users, whose details can be stored as entries in the candidate database. Preferably, the data store is also configured to store a job database wherein each entry includes data relating to a job offered by an employer-user.

The data relating to the history of the candidate-user in connection with the recruitment agency may include details including: the date when the candidate-user first used the recruitment agency; details, including dates, of any changes were made to the personal details of the candidate-user stored in the candidate database;

information regarding any contact (by mail, electronic communications, fax, telephone or personal) between the candidate-user and the recruitment agency.

5 In a preferred embodiment, all or some of the history data includes data relating to one or more interview involving the candidate-user. The interview data may include image data of a video recording of the interview. The interview data may include audio data of an audio recording of the interview. The interview data may include textual information relating to the interview. 10 The textual information can be a partial or full transcript of the interview and/or a summary or comments relating to the performance of the candidate in the interview.

15 All or some of the candidate database entries may also include data relating to tests sat by the candidate-user. The tests can include psychometric, personality, and/or skill tests.

20 Preferably, the system further includes candidate search means for allowing an employer-user to selectively view entries from the candidate database. Preferably, the system further include a job search component for allowing a candidate-user to selectively view entries from the job database.

25 The data store may further include an employer database wherein each entry includes data relating to one of the employer-users. The system may further include an

employer database search component for allowing an employee-user or candidate-user to selectively view entries from the employer database.

Preferably, entries in the candidate database and/or
5 job database include data relating to the cost to an employer-user of recruiting a particular candidate.

Preferably, entries in the job database further include data relating to terms and conditions of the job. The system may include a transfer component for
10 transferring the terms and conditions data to an employer-user and/or a candidate-user, for example, by e-mail.

The data store may require a password to be correctly entered before it is made accessible to an employer-user or candidate-user. Data in the store may be encrypted.

15 In a preferred embodiment, the communications network includes the Internet and data in the data store may be input and/or output via World-wide web pages. Although the preferred embodiment described herein below refers to the World-wide web, it will be understood that the system
20 is not restricted to this particular form of data access and that any communications network could be used and any means of accessing such a network could be utilised, for example digital television apparatus, "mobile" communications devices such as mobile phones with data
25 transfer/display capabilities.

The World-wide web page may be configured to provide video conference facilities. The World-wide web page may

also include a plurality of selectable icons, each corresponding to particular data stored in a candidate-user database entry, such that when one of the icons is selected, the corresponding data is displayed in a window.

5 The employer-users can include other ("external") agencies involved in recruitment who wish to use the database in order to have a wider source of potential employees. As different recruitment agencies use different computer systems, the formats of their databases
10 will not normally be consistent with that of the preferred embodiment. To help overcome this problem and allow external agencies to use the data store of the computer system maintained by the recruitment agency as a "centralised" database the computer system can further
15 include:

 a conversion component for converting data relating to an external database to a form suitable for use by the computer system maintained by the recruitment agency.

 In particular, the data to be converted can relate to
20 skill codes. The conversion component may obtain a set of skill codes relating to the external database and for each member of the set, provide a skill code corresponding to that member in a form suitable for use by the computer system maintained by the recruitment agency. The
25 conversion components may include a look-up table. The set of skill codes is preferably obtained by the computer system maintained by the recruitment agency by transfer

over the communications network. Alternatively, the set may be transferred by other means, such as mail, fax, verbal communication etc. Preferably the set is stored in the data store, along with data identifying the external database to which it relates.

To facilitate two-way communication between the computer system maintained by the recruitment agency and external databases, the computer system can further include:

a second conversion component for converting data in the data store to a form suitable for use by the external database. The second component may include a set of codes relating to the computer system maintained by the recruitment agency and for each member of the set, store a code corresponding to that member in a form suitable for the external database. This can allow external agencies to use the employers database of the computer system maintained by the recruitment agency to store entries relating to jobs offered by their own clients, i.e. the actual employers.

According to a second aspect of the present invention there is provided a method of providing recruitment agency services over a communications network, the recruitment agency maintaining a computer system including a processor and a data store, the method including steps of:

controlling access of one or more employer-users to the data store,

maintaining a candidate database in the data store wherein each entry relates to a potential candidate for employment,

5 wherein all or some of the entries in the candidate database include data relating to the history of the candidate in connection with the recruitment agency.

Preferably, the data store is also accessible to candidate-users, whose details can be stored as entries in the candidate database. Preferably, the method further
10 includes the step of maintaining a job database in the data store wherein each entry includes data relating to a job offered by an employer-user.

According to a further aspect of the present invention there is provided an employment recruiting
15 method, including steps of:

maintaining a candidate database wherein each entry relates to a potential candidate for employment, and

making the candidate database accessible to one or more employer-user over a communications network,

20 wherein all or some of the entries in the candidate database includes data relating to the history of the candidate in connection with the recruitment agency.

The method may further include the step of transferring selected data from the candidate database
25 over the communications network to the employer-user. The transferred information may be presented on a World-wide Web page.

According to a further aspect of the present invention there is provided a computer system for being maintained by a recruitment agency, the system including a processor and a data store configured to store a candidate
5 database wherein each entry relates to a potential candidate for employment, the computer system further including:

a transfer component for transferring data to and/or from an external database over a communications network,
10 a conversion component for converting data relating to the external database to a form suitable for use with the data store.

The conversion component may include a look-up table. The system may further include a second conversion
15 component for converting data in the data store into a form suitable for use by the external database. The converted data may be transferred to the external database over the network.

The data to be converted may relate to skill codes.

20 According to another aspect of the present invention there is provided a computer program product comprising a computer readable medium, having thereon:

computer program code means, when the program code is loaded, to make the computer execute a procedure to:

25 control access of one or more employer-users to a data store,

maintain a candidate database in the data store wherein each entry relates to a potential candidate for employment,

5 wherein all or some of the entries in the candidate database include data relating to the history of the candidate in connection with a recruitment agency.

According to yet another aspect of the present invention there is provided a computer terminal configured to communicate with a computer system as described above
10 over the communications network.

According to a further aspect of the present invention there is provided an employment recruitment method including steps of:

maintaining a candidate database wherein each entry
15 relates to a potential candidate for employment, and

transferring data to the data store from an external database over a communications network, and

converting data from the external database into a form suitable for use with the candidate database.

20 The method may further include the step of converting data in the data store into a form suitable for use with the external database. The may further include the step of transferring the converted data to the external database over the communications network.

25 Whilst the invention has been described above, it extends to any inventive combination of the features set out above or in the following description.

The invention may be performed in various ways, and, by way of example only, an embodiment thereof will now be described by way of example only, reference being made to the accompany drawings, in which:-

5 Figure 1 illustrates schematically steps performed by and resulting from a candidate-user using the recruitment agency computer system,

 Figure 2 illustrates schematically an entry in the candidate database,

10 Figure 3 illustrates schematically steps performed by and resulting from an employer-user using the recruitment agency computer system,

 Figure 4 illustrates schematically an entry in the job database,

15 Figure 5 illustrates the layout of a screen display which can be used to view the data store, and

 Figure 6 illustrates schematically hardware which may be used to implement the system.

 At step 101 of Figure 1, a candidate-user connects to
20 the website of the recruitment agency using conventional World-wide web navigation software such as Microsoft® Explorer. In order to access the data store of the recruitment agency computer system via the website, the user is required to log on by selecting an icon, or,
25 preferably, by entering a candidate-user name and a password provided by the recruitment agency during a registration process. In this specification, a

"candidate-user" is a person who logs on to the recruitment agency website with the intention of viewing one or more entries from the job database and/or the employers database and possibly entering their own details to be stored as an entry in the candidate database.

After logging on at step 101, the candidate-user may perform operations selectable using icons on a web page. In addition to the recruitment agency database specific options described below, the candidate user may also be offered other services via the web page. Examples of such services include training advice, or magazine-style info, company shares or links to other websites. Some of these additional services may be advertisements or provided by external parties which are charged a fee for having them included on the recruitment agency web pages.

The recruitment agency database specific options which the candidate-user may perform include: browse through entries in the job database or enter search criteria to find specific entries in the job database (step 102); enter their personal details for entry in the candidate database (step 103) or browse/search the employer's database (step 104) for details of employers who use the recruitment agency.

If the candidate-user opted to browse/search the job database at step 102 then he/she is presented with a web page which he/she can use to either enter search criteria to be presented with summaries of entries from the job

database which match those criteria, or use icons on the web page to navigate through summaries of entries in the job database. If the candidate-user is interested in an entry in the job database which he/she has viewed then
5 he/she may select an icon on the web page to display full details of the job database entry instead of the summary. The candidate-user may view any of the data associated with the job database entry (see description below with reference to Figure 2), apart from data to which access is
10 restricted by the recruitment agency. For example the name of the employer may be restricted to avoid having the candidate-user directly contacting the employer.

At step 105 the candidate-user can select an icon on the web page to register his/her interest in the job. If
15 the candidate-user has not entered his/her details in the candidate database then the computer system directs him/her to step 103 where he/she can enter his/her personal details. After a candidate database entry has been created for the candidate-user, the entry for the job
20 in the job database is updated at step 106 to include a reference to the candidate database entry of the candidate-user and other information, such as the date when the candidate-user registered his/her interest, or a "covering letter" in form of a text file which the
25 candidate wishes to present to the potential employer. The candidate database entry itself is also updated with

information detailing that the candidate-user applied for the job.

When the candidate-user enters his/her personal details at step 103, he/she is presented with a web page representing a form to fill in using the keyboard of his/her computer terminal. The web page includes a "submit" icon which the candidate-user selects in order to transfer the data (step 107) which he/she entered on the web page to the computer system of the recruitment agency. The transmitted data is stored in the data store of the computer system of the recruitment agency as a temporary file because an entry in the candidate database accessible to employer-users will not normally be created until references have been obtained and checked for the candidate-user. If the recruitment agency is satisfied with the references and other data obtained for the candidate-user after checking them at step 108 then the details of the reference are stored in a temporary file in the data store of the computer system at step 109. The reference data stored may be a transcript or audio data of a telephone call or conversation between the recruitment agency and the referee, or the text of a letter, fax or e-mail sent to the recruitment agency by the referee. A scanned image of a letter sent by the referee to the recruitment agency can also be stored as it can reassure a potential employer that the reference is genuine as it can include headed paper and signature of the referee.

After the personal details of the candidate-user have been transferred to the data store of the computer system at step 107, the recruitment agency may review the data, possibly contacting the candidate-user to obtain more information or not accepting candidate-users which are unsuitable for some reason. The recruitment agency may arrange for the candidate-user to be interviewed at step 110.

Personal details in the candidate database entry may be modified after the interview, or, if the candidate-user input insufficient or unclear data on the web page form (e.g. omitted the name and address of a referee) then the candidate-user may be asked to disclose the information during the interview. The interview may be between the candidate-user and the recruitment agency or between the candidate-user and a potential employer. If the candidate is willing, then the interview is recorded in order to be made available to future potential employers via the candidate database. The interview is recorded by means of a video camera and a partial or full recording is digitised and stored as a file containing graphical and audio data in the data storage. Alternatively, the recording of the interview may be audio only, for example if the interview takes place over the telephone, in which case audio data of all or part of the interview is stored in a file in the data store. If the interview takes place via a video conference then digital graphical data

representing a recording of all or part of the video conference is stored in a file. The recruitment agency may alternatively or additionally create a text file either containing a full/partial transcript of the interview, or comments regarding the performance of the candidate in the interview. The interview data is stored as a temporary file in the data store at step 111.

In addition to the interview, the interviewer may arrange for the candidate to try various tests. The tests may include one or more of the following:

- Psychometric test: used to assimilate the personality of the candidate-user in terms of a particular job, or help channel him/her to a more suitable career. The results of this test can be used to provide search criteria for the candidate-user to use to view suitable entries from the job database. The results of this test can be used to generate skill codes which can be stored in the candidate database entry. These skill codes can be used as search criteria by employer-users to find suitable candidates.
- Personality test: used to assimilate the personality of the candidate-user in a broader sense, and hence his/her ability to fit in with the "culture" and team members of a company.
- Skill test: used to assess the candidate-user's knowledge of skills. The test itself can be tailored to each industry division (for example the Commercial DN

test would assess word per minute typing speed, accuracy, amongst other skills).

The way in which the results of these tests can be recorded, entered into the database and displayed will be described below with reference Figure 5.

After the references and other data supplied by the candidate-user have been verified by the recruitment agency then at step 112 an entry in the candidate database is created. The recruitment agency database can include "firewall" type security so that the information in the database should not be available for viewing or modifying by unauthorised parties. The candidate database entry is created using the interview data stored at step 111, the reference data stored at step 109, the personal details of the candidate-user stored at step 107 and any further information which the recruitment agency wishes to store in connection with the candidate-user. This further information can include requests from the candidate such as whether they require any training or wish to work on a consultancy basis.

If the candidate-user opted to browse/search the employers database at step 104 then he/she is presented with a web page which he/she can use to either enter search criteria to be presented with entries from the employers database which match those criteria, or use icons on the web page to navigate through entries in the employers database. Each entry in the employers database

includes data relating to an employer-user registered with the recruitment agency. The data may be created by the employer-user him/herself or by the recruitment agency. The purpose of the employers database is to provide users
5 with a profile and background data regarding the employer-user. Entries in the employers database can include audio/graphic data acting as a promotional video for the company. The employers database can also include data relating to external recruitment agencies which make use
10 of the database. Entries in the employers database are normally created by the recruitment agency using data provided (e.g. by e-mail) by employer-users. At step 113 the candidate database entry for the candidate-user is updated to record which entries in the employers database
15 he/she viewed.

Figure 2 illustrates schematically the format of a single entry in the candidate database. It will be understood that the database could be implemented by customising known commercial database systems or by being
20 programmed using conventional programming languages. The database entry formats shown in Figures 2 and 4 are merely examples of data structures which could be used, with the left hand column denoting data object (i.e. a collection of data organised in some way) names and the right hand
25 column showing the data type of the corresponding object, or the variables which it contains. The entry includes a Candidate-User Reference object comprising a code which

can be used as a reference key internally by the database. The entry also includes a Personal Details object for the candidate-user, including name, address, age, status, qualifications, experience, skills and interests. These
5 personal details normally comprise the information entered by the candidate at step 103 of Fig 1 but may be tailored by the recruitment agency for presentation to potential employers. The details can be presented on a web page or printout in the format of a standard resume.

10 The entry also includes, where available, data relating to tests taken by the candidate-user. The tests can include the Psychometric, Personality and Skill tests. The data relating to the tests may be images and/or audio recordings of the candidate-user taking the tests and/or
15 results/comments regarding the performance of the candidate-user.

The entry also includes, where available, an Interview Data object, in the form of graphical, audio and/or textual data. The entry also includes a References
20 object containing data relating to the references obtained and checked by the recruitment agency for the candidate-user. The reference data may be the text or audio recording of the reference obtained or a scanned image of a letter.

25 The entry also includes a Candidate/Agency History object containing data relating to the history of the candidate-user in connection with the recruitment agency,

including data such as the date the candidate-user first entered their personal details for entry on the candidate database; details of jobs which the candidate-user has applied for; details of jobs which the candidate-user has successfully obtained; details of any changes which the candidate-user has made to his/her personal details and additional information which the recruitment agency wishes to store in connection with the candidate-user, such as details of any telephone, electronic, postal or personal contact between the candidate-user and the agency. The object may also include data indicating which, if any, entries in the employers database the candidate-user has viewed. It will be understood that the entry could store any additional data relating to the candidate-user which the recruitment agency wishes to record. The Candidate/agency History object can also include links to other data objects such as the Interview Data, References and Personal Details objects, so that the Candidate/agency History object effectively contains the data contained within these objects.

An Employment Status object (recording whether the candidate-user is available/unavailable to potential employers) is also stored in the candidate database entry, along with the dates when the candidate-user is available/unavailable.

Referring now to Figure 3, at step 301 an employer-user connects to the website of the recruitment agency.

In order to access the data store of the computer system via the website, the employer-user is required to log on by selecting an icon, or preferably by entering an employer-user name and a password provided by the recruitment agency during a registration process. In this specification, an "employer-user" is a person who logs on to the recruitment agency website with the intention of viewing one or more entry from the candidate database and/or the employers database and possibly entering details of a job they wish to offer as an entry in the job database. Thus, an employer-user can either be a member of the company which is seeking an employee or a member of an external recruitment agency who wishes to utilise the database.

After logging on at step 301, the employer-user may perform three operations selectable using icons on a web page: entering details of a job offer (step 302); browsing through entries in the candidate database or entering search criteria to find specific entries in the candidate database (step 303) and browsing/searching through the employers database (step 304). The employers database is viewed by an employer-user at 304 in substantially the same manner as by a candidate-user (step 113) and can allow an employer-user to see whether his/her competitors use or present themselves through the agency.

If the employer-user opted to enter job offer data (step 302) then at step 305 he/she is presented with a web

page representing a form to fill in with details of the job using the keyboard of his/her computer terminal. The web page includes a "submit" icon which the employer-user selects in order to transfer the data he/she has entered
5 on the web page to the computer system of the recruitment agency at step 304. A job database entry including details of the job offer entered can then be created.

If the employer-user opted to browse/search the candidate database (step 303) then he/she is presented
10 with a web page which he/she can use to either enter search criteria to be presented with summaries of entries from the candidate database which match those criteria, or use icons on the web page to navigate through summaries of entries in the candidate database. If the employer-user
15 is interested in a particular entry in the candidate database which he/she has viewed then at step 306 he/she can select an icon on the web page to display full details of the candidate-user corresponding to the entry, or print out the details of the candidate-user. The employer-user
20 can select using icons on the web page to view/print some or all of the data objects associated with the entry as described with reference to Figure 2, apart from any candidate database entry data to which the recruitment agency restricts access. For example, the name and
25 address of the candidates will normally be restricted so that the employer-user is unavailable to bypass the recruitment agency and contact the candidate directly.

If the employer-user is interested in one or more of the candidate-users then at step 307 the employer-user can contact the recruitment agency to request an interview if desired. If an interview takes place then this process
5 may be similar to that of step 110 of Figure 1 when carried out by an employer-user. Data resulting from the interview can be stored in the candidate-user database entry at step 308 in a similar manner to step 111.

If the employer-user selects one of the candidates
10 interviewed then at step 309 they contact the recruitment (e.g. by selecting an icon on the web page which sends an e-mail to the agency) to instruct them to offer the job to the candidate-user. The agency relays details of the job offer to the candidate-user via e-mail, letter, fax,
15 telephone or a meeting. If the employer-user did not request an interview at step 307 and decided to make a job offer on the basis of the candidate database entry data viewed at step 306 then the job offer can still, of course, still be made at step 309.

20 If the candidate-user accepts the job offer then at step 310 the job database entry corresponding to the accepted job offer is either deleted from the database or its status object is updated to "Taken", so that other candidate-users will not be able to apply for the job. At
25 this point, the terms and conditions stored in the job database entry (see below) can be transferred to the candidate-user by e-mail. If the candidate-user does not

accept the job offer then the employer-user may select another one of the candidate-users (step 309) or may postpone making a decision or withdraw the job offer from the recruitment agency.

5 At step 311, the candidate database entry for the successful candidate is updated so that the candidate/agency history data includes details of the job which they obtained. The recruitment agency at this point will normally issue an invoice to the employer-user for
10 successfully finding them an employee.

 Figure 4 illustrates schematically the format of a single entry in the job database. The entry includes a Job Reference object comprising a code which can be used as a reference key internally by the database and a
15 reference to an entry in the employer database corresponding to the employer-user who is offering the job. The entry also includes an Employer Details object which contains the name and address and, where available, fax, telephone, e-mail details of the person in the
20 company the recruitment agency should contact. In the case where the employer-user is an external agency, details of the actual employer offering the job may be withheld and the entry may only include a reference to the external agency and/or a description of the actual
25 employer. The object can also contain a reference to an entry in the employers database corresponding to the employer-user so that candidates can be directed to some

background information about the employer when viewing the job database.

A Job Details object is also included in the entry. This object contains data relating to the job being offered, such as the job title; the field/type of the job; information regarding the salary and any benefits such as a bonus scheme or car offered with the job; ideal/minimum requirements for the job, such as experience, skills and qualifications of the potential employee; and data relating to the terms and conditions of the job. The skill requirements can be stored in the form of skill codes. The preferred skill codes for the job may be determined as a result of one or more current employees of the employer-user sitting the skill test, the results of such tests being used as the desired skill codes for new employees.

The Job Details object can also be used to store additional information such as requests from the employer-user. The object can also include image/audio data which can act as a promotional video for the company offering the job. Such data may be tailored for the particular job being offered. The entry also contains a Candidates object, which contains references to the candidate database entries of candidate-users who have registered an interest in the job. The entry also contains a Cost object which can either be a sum of money payable by the employer-user to the recruitment agency upon having the

job offer accepted by a candidate-user, or a formulae noting the sum payable, for example 5 - 12% of the annual salary of the job. Details of the cost can be provided to the employer-user, e.g. by e-mail or a web page, when a
5 job database entry is created for a job offered by the employer-user. A Status object is also included in the entry. This object is used to stored a variable indicating whether the job is still available for application by candidate-users, or whether it has been
10 filled or withdrawn by the employer-user.

Referring now to Figure 5, the layout of a screen display which can be used by the recruitment agency or an employer-user to view the details of a candidate-user is shown. The display includes a main window 40, which is
15 normally a window provided by the WWW navigation software. The recruitment agency may also allow access to the screen to a candidate-user so that he/she can review the data which is stored in his/her candidate database entry. The screen display can also be used for the recruitment agency
20 or an employer-user to interview a candidate-user over the communications network, i.e. a form of video conferencing, such as that which occurs during step 110 of Fig. 1 and step 307 of Fig.3. If this is the case, then a window 41 is present on the screen showing an image of the
25 candidate-user transmitted from a digital camera. At the other end of the communications link, the computer terminal of the candidate-user may display a similar main

window 40, with a video conferencing window 41 displaying an image of the employer-user/recruitment agency transmitted from a digital camera.

Also on the screen are five icon buttons, 42 to 46, each of which may be selected to present data from the candidate-user's candidate database entry in a window 47.

Button 42 is used to present data from the Personal Details object of the candidate database in the window 47. Button 43 is used to display the candidate database entry Psychometric Test data. Button 44 is used to display the candidate database entry Personality Test data in window 47. Button 45 is used to display the candidates database entry Skill Test data. Button 46 is used to display data from the References object of the candidates database in window 47.

If the video conferencing feature is being used, then the employer-user/recruitment agency can select one of the buttons 43 to 45 to instruct the candidate-user to try the corresponding test. The recruitment agency/employer-user can then watch the candidate-user trying the test via the video conference link. Data representing images of the candidate-user trying the test can be stored in the candidate database entry for the candidate-user so that it can be viewed again. The recruitment agency/employer-user may place additional data relating to the test in the database, e.g. comments on the performance of the candidate-user.

The screen also includes a "shopping basket" icon 48. Clicking on the shopping basket icon 48 stores a reference to the particular candidate-user whose details are currently viewed on the screen in a shopping basket list.

5 The employer-user/recruitment agency can then double-click on the icon 48 in order to view the list so that details of particular candidate-users which were of interest can be recalled.

As the preferred embodiment can be used by external agencies who use their own different computer systems (such as the known "Talisman" system) this type of employer-user can select another option after logging on to the web site. This further option involves setting up a conversion of data relating to their own database into a form which can be used by the computer system maintained by the recruitment agency. A list of skill codes maintained by the external database is transferred to the computer system by means of e-mail. If the list does not include an "explanation" of each of the external skill codes then the recruitment agency will create an equivalent skill code for their own computer system by questioning the external agency about the meaning of the codes. Alternatively, if the list does include an explanation of each code, then the recruitment agency can review this list to check that each explanation is valid for their own system.

10

15

20

25

After each external code is matched up with a code suitable for the computer system maintained by the recruitment agency then a look-up table can be created, which can act like a "dictionary" to translate between the two forms. Thus, when the external agency wishes to search through the candidate database using skill codes as search criteria then the query data in the form suitable for their own external databases is transferred to the computer system over the communications network and the look-up table is used to convert the external code into a code suitable for use by the computer system. This converted code is then used to search through the candidate database. The results of the search can then be converted into a form suitable for the external database and transferred to the external agency via the network. For example, the code PHBN4 may mean "Housing Benefit Assessor with at least four years experience" in an external agency database but would not be suitable for use as a query in the computer system of the preferred embodiment. However, the system would obtain the words by using the code PHBN4 as a key in the look-up table and words obtained could be used as valid search criteria in the system. Other examples of external skills codes, such as those which can be used by "Voyager" systems, include the use of colour codes/shades to denote low, medium or high level of expertise. In this case, a particular colour code can be replaced by words such as "medium

expertise" which can be used as a valid skill code search criteria in the computer system maintained by the recruitment agency. This conversion of data with external databases can also be extended so that data relating to jobs from the external database can transferred over the communications network, converted and used to create entries in the job database of the preferred embodiment. Thus, external agencies can effectively use the computer system as an extension of their own resources, normally for a fee charged by the recruitment agency.

In an alternative embodiment, instead of the employer-user directly entering details of the job offer using the web page at step 302, the employer-user may contact the recruitment agency, for example by letter, e-mail, fax, telephone or personally, to provide them with details of the job offer. In this case, the recruitment agency will enter the details of the job directly into the job database. Similarly, instead of the candidate-user directly entering details onto the web page at step 103 onwards, the candidate-user may contact the recruitment agency, for example by telephone or letter, etc, to provide them with personal details in which case the recruitment agency will enter the details into the data store. If the candidate-user sends in a ready prepared C.V. then this can be scanned and stored as image data in the candidate database entry.

An example of how the system can be implemented is shown schematically in Figure 6. A personal computer 601 communicates via the Internet 602 with the recruitment agency computer system 603. It will be understood by those skilled in the art that the connections between the PC 601 and computer system 603 can be made in a number of different ways and may involve different types of hardware. The connections allow different types of users (e.g. employer-users, candidate-users, etc.) to remotely access the data store 604 of the recruitment agency computer system 603 using a standard PC 601 running WWW Browser software such as Microsoft Explorer [™] for data transfer using the WWW protocol.

The data store 604 is configured to store databases as described above. The computer system 603 includes a job search component 605 and employer search component 606 to allow different types of users to search for particular information. The computer system 603 includes a transfer component 607 for communication over the internet. Access to the data may be restricted by password/security component 608, which may also be responsible for encrypting and/or decrypting data.

The computer system 603 also includes conversion components 609 for converting skill codes as described above. The conversion components include at least one look-up table 610 holding a list of skill codes used by the recruitment agency computer system itself and a

corresponding list of skill codes used by one or more external database system.

5 The embodiments described above provide recruitment agency services over the Internet, thus allowing employer-users and candidate-users to use the system internationally, normally at low telephone cost. The use of the Internet also means that delays traditionally caused by mail are avoided. The system described above can be used by any recruitment agency with access to a
10 computer terminal connected to the Internet and so the recruitment agency does not necessarily have the large outlays associated with running a business, such as the costs of running city-centre premises.

Claims

1. A computer system for being maintained by a recruitment agency, the system including a processor and a data store accessible to one or more employer-user via a communications network and configured to store:

a candidate database wherein each entry relates to a potential candidate for employment,

wherein all or some of the entries in the candidate database include data relating to the history of the candidate in connection with the recruitment agency.

2. A computer system according to Claim 1, wherein the data store is also accessible to candidate-users, whose details can be stored as entries in the candidate database.

3. A computer system according to Claim 1 or 2, wherein the data store is also configured to store a job database wherein each entry includes data relating to a job offered by an employer-user.

4. A computer system according to any one of the preceding Claims, wherein the data relating to the history of the candidate-user in connection with the recruitment agency includes details selected from the following set: a date when the candidate-user first used the recruitment

agency; details, including dates, of any changes made to personal details of the candidate-user stored in the candidate database; information regarding any contact between the candidate-user and the recruitment agency.

5

5. A computer system according to any one of the preceding Claims, wherein the history data includes data relating to one or more interview involving the candidate-user.

10

6. A computer system according to Claim 5, wherein the interview data includes image data of a video recording of an interview.

15

7. A computer system according to Claim 5 or 6, wherein the interview data includes audio data of an audio recording of an interview.

20

8. A computer system according to any one of Claims 5 to 7, wherein the interview data includes textual information relating to an interview.

25

9. A computer system according to Claim 8, wherein the textual information includes a partial or full transcript of the interview.

10. A computer system according to Claim 8 or 9 wherein the textual information includes a summary or comments relating to the performance of the candidate in the interview.

5

11. A computer system according to any one of the preceding Claims, wherein all or some of the candidate database entries include data relating to tests sat by the candidate-user.

10

12. A computer system according to Claim 11, wherein the tests include psychometric, personality or skill tests.

15

13. A computer system according to any one of the preceding Claims, further including a candidate search component for allowing an employer-user to selectively view entries from the candidate database.

20

14. A computer system according to any one of Claims 3 to 13, further including a job search component for allowing a candidate-user to selectively view entries from the job database.

25

15. A computer system according to any one of the preceding Claims, wherein the data store further includes an employer database with each entry in the employer

database including data relating to one of the employer-users.

16. A computer system according to Claim 15, further
5 including an employer database search component for allowing an employer-user or candidate-user to selectively view entries from the employer database.

17. A computer system according to any one of the
10 preceding Claims, wherein the data store includes data relating to the cost to an employer-user of recruiting a particular candidate.

18. A computer system according to any one of the
15 preceding Claims, wherein the entries in the job database further include data relating to terms and conditions of the job.

19. A computer system according to Claim 18, further
20 including a data transfer component for transferring the terms and conditions data to an employer-user or a candidate-user.

20. A computer system according to any one of the
25 preceding Claims, wherein the data store requires a password to be correctly entered before it is made accessible.

21. A computer system according to any one of the preceding Claims, wherein the communications network includes the Internet and data in the data store is
5 input/output via World-wide web pages.

22. A computer system according to Claim 21, wherein the World-wide web page is configured to provide video conference facilities.

10

23. A computer system according to Claim 21 or 22, wherein the World-wide web page includes a plurality of selectable icons, each said icon corresponding to particular data stored in a candidate-user database entry,
15 such that when one of the icons is selected, the corresponding data is displayed in a window.

24. A computer system according to any one of the preceding Claims, further including:

20 a data conversion component for converting data relating to an external database to a form suitable for use by the computer system maintained by the recruitment agency..

25 25. A computer system according to Claim 24, wherein the data to be converted relates to skill codes and the conversion component is configured to obtain a set of

skill codes relating to the external database, and for each member of the set, provide a skill code corresponding to that member in a form suitable for use by the computer system maintained by the recruitment agency.

5

26. A computer system according to Claim 25, wherein the conversion component includes a look-up table.

27. A computer system according to Claim 25 or 26,
10 wherein the set of skill codes is obtained by the computer system over the communications network.

28. A computer system according to any one of Claims 24 to 27, further including:

15 a second conversion component for converting data in the data store to a form suitable for use by the external database.

29. A method of providing recruitment agency services
20 over a communications network, the recruitment agency maintaining a computer system including a processor and a data store, the method including steps of:

controlling access of one or more employer-users to the data store,

25 maintaining a candidate database in the data store wherein each entry relates to a potential candidate for employment,

wherein all or some of the entries in the candidate database include data relating to the history of the candidate in connection with the recruitment agency.

5 30. A method according to Claim 29, wherein the data store is also accessible to candidate-users, whose details are stored as entries in the candidate database.

10 31. A method according to Claim 29 or 30, further including a step of maintaining a job database in the data store wherein each entry in the job database includes data relating to a job offered by an employer-user.

15 32. An employment recruiting method, including steps of:
maintaining a candidate database wherein each entry relates to a potential candidate for employment, and
making the candidate database accessible to one or more employer-user over a communications network,
wherein all or some of the entries in the candidate
20 database include data relating to the history of the candidate in connection with the recruitment agency.

25 33. A computer program product comprising a computer readable medium, having thereon:
computer program code means, when the program code is loaded, to make the computer execute a procedure to:

control access of one or more employer-users to a data store,

maintain a candidate database in the data store wherein each entry relates to a potential candidate for employment,

wherein all or some of the entries in the candidate database include data relating to the history of the candidate in connection with a recruitment agency.

10 34. A computer system for being maintained by a recruitment agency, the system including a processor and a data store configured to store a candidate database wherein each entry relates to a potential candidate for employment, the computer system further including:

15 a transfer component for transferring data to and/or from an external database over a communications network,

a conversion component for converting data relating to the external database to a form suitable for use with the data store.

20

35. A computer system according to Claim 34, wherein the conversion component includes a look-up table.

36. A computer system according to Claim 34 or 35, further including a second conversion component for converting data in the data store into a form suitable for use by the external database.

25

37. An employment recruitment method including steps of:
maintaining a candidate database wherein each entry
relates to a potential candidate for employment, and
5 transferring data to the data store from an external
database over a communications network, and
converting data from the external database into a
form suitable for use with the candidate database.

1/5

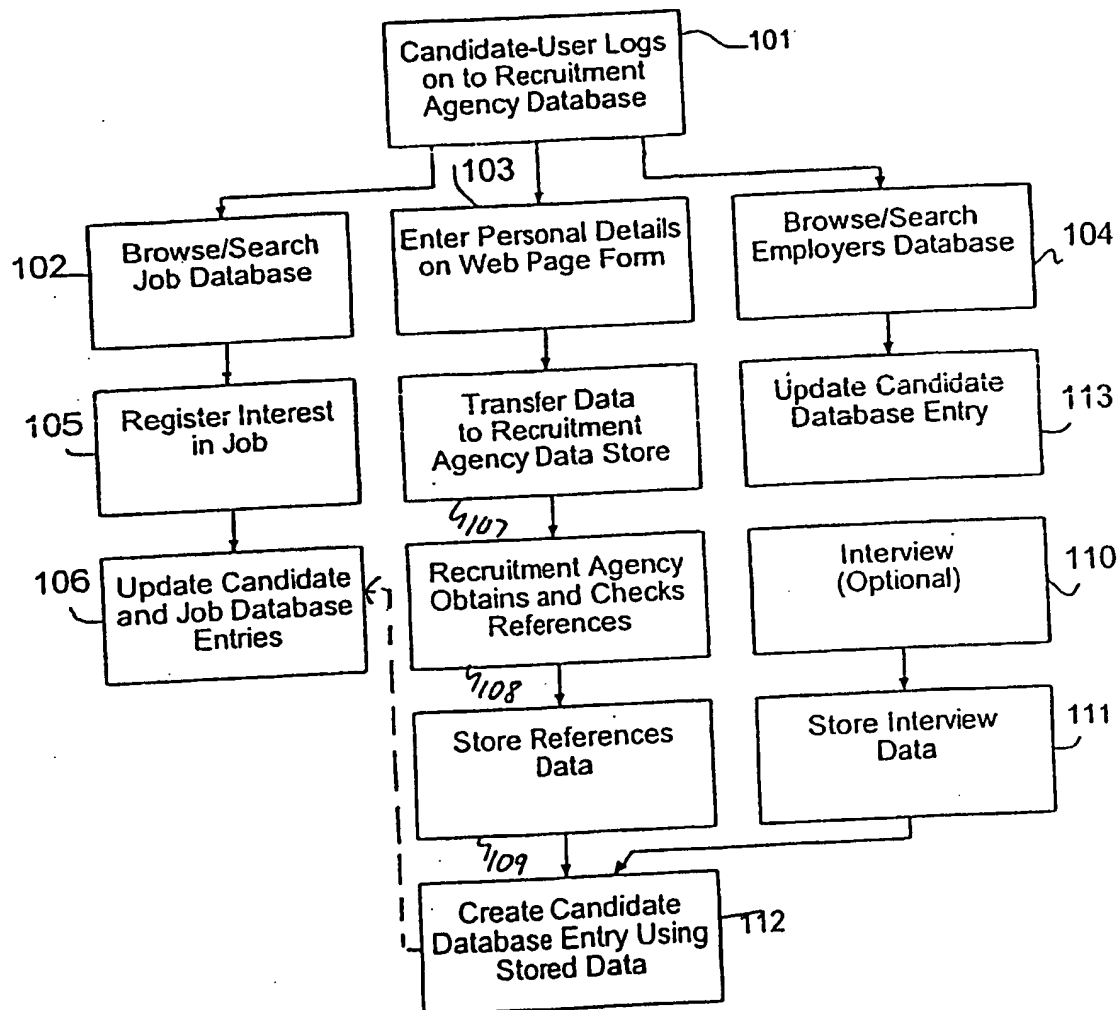


Fig. 1

3/5

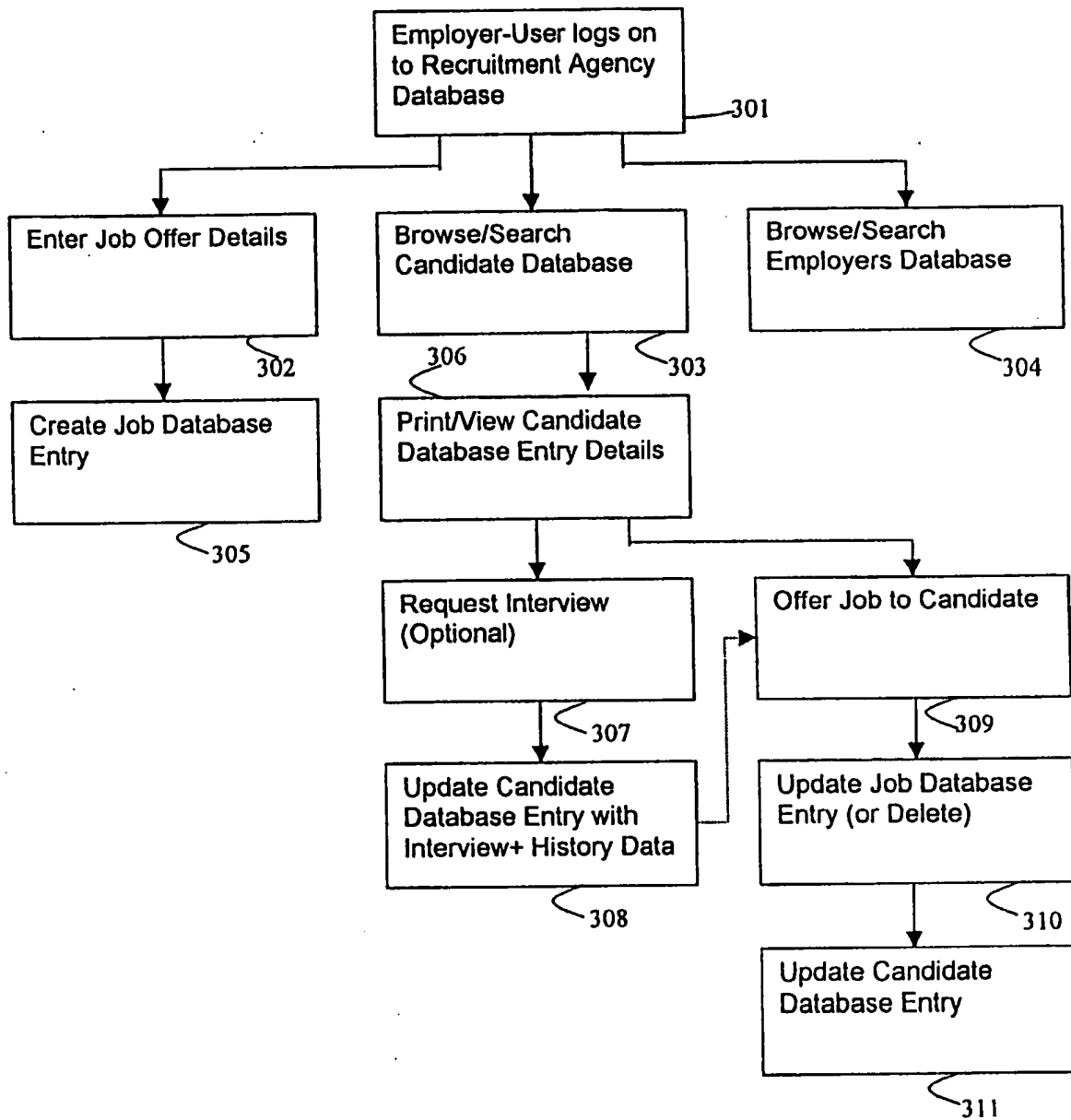


Fig. 3

2/5

CANDIDATE DATABASE ENTRY

Candidate User Reference	Code
Personal Details	Name, Address, Age, Status Qualifications Experience Skills Interests Psychometric, Personality and Skill Test Results
Interview Data	Text/Image/Audio
References	Text/Image/Audio
Candidate/Agency History	Date Registered Jobs Applied for Jobs Obtained Changes to Personal Details Entries in Employers Database Viewed Additional Information
Employment Status	Available, Unavailable (Dates)

Fig. 2

JOB DATABASE ENTRY

Job Reference	Code, Employer-User Reference
Employer Details	Name Address Telephone Number Fax Number Email Address
Job Details	Title Field/Type Salary, Benefits Requirements (experience, qualifications, skills) Terms and Conditions Additional Information
Candidates	References to Candidate Database Entries for Candidate-Users who have Registered an Interest in the Job
Cost	Sum/Formula
Status	Available, Withdrawn, Taken

Fig. 4

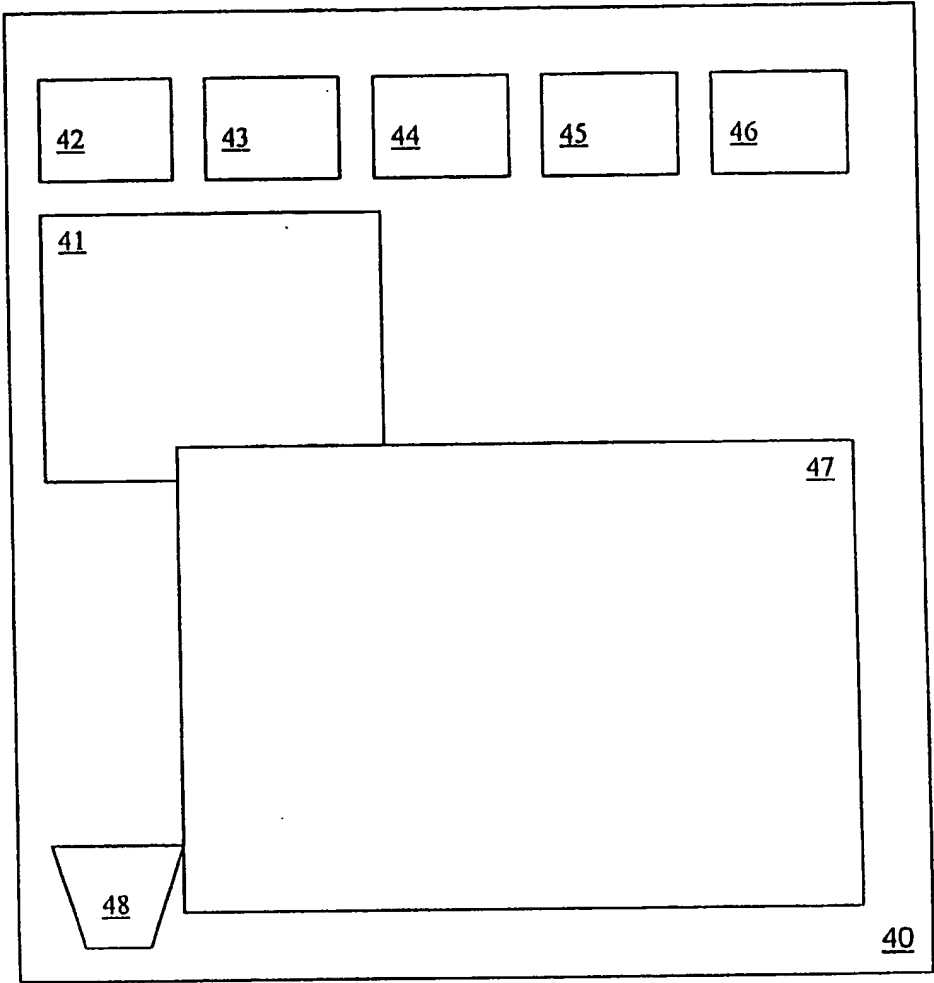


Fig. 5

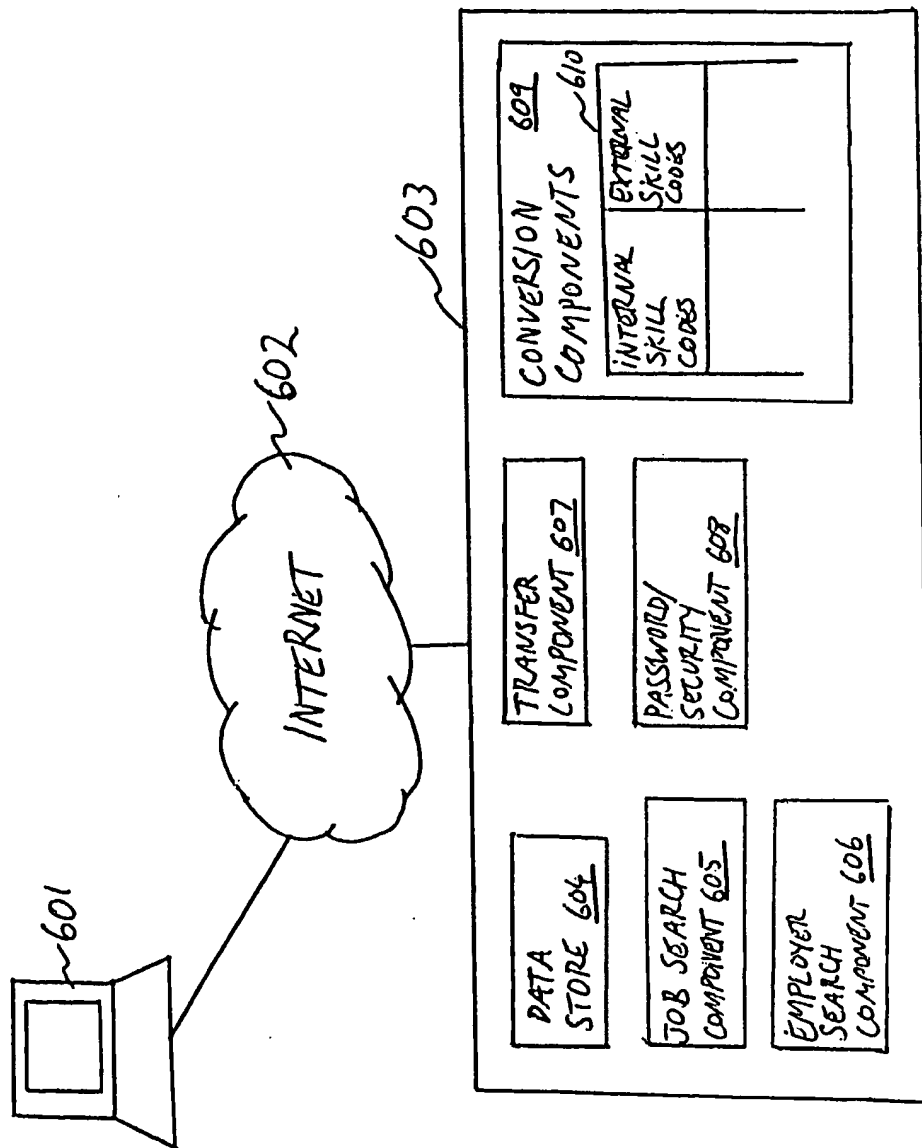


FIG. 6

REVISED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 August 2001 (23.08.2001)

PCT

(10) International Publication Number
WO 01/61527 A2

(51) International Patent Classification⁷: **G06F 17/60**

(21) International Application Number: **PCT/GB01/00642**

(22) International Filing Date: 16 February 2001 (16.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0003509.7 16 February 2000 (16.02.2000) GB

(71) Applicant and

(72) Inventor (for US only): **COLLINS, John, Raymond**
[GB/GB]; 35 Amity Court, Longueil Close, Atlantic
Wharf, Cardiff CF10 4EA (GB).

(74) Agents: **NEWELL, William, Joseph** et al.; Wynne-Jones,
Laine & James, 22 Rodney Road, Cheltenham, Gloucester-
shire GL50 1JJ (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— with declaration under Article 17(2)(a); without abstract;
title not checked by the International Searching Authority

(48) Date of publication of this revised version:

7 March 2002

(15) Information about Correction:

see PCT Gazette No. 10/2002 of 7 March 2002, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/61527 A2

(54) Title: COMMUNICATIONS NETWORK BASED RECRUITMENT

(57) Abstract:

PATENT COOPERATION TREATY

PCT

DECLARATION ~~OF~~ NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference WJN/COLLINS	IMPORTANT DECLARATION	Date of mailing(day/month/year) 04/10/2001
International application No. PCT/GB 01/ 00642	International filing date(day/month/year) 16/02/2001	(Earliest) Priority date(day/month/year) 16/02/2000
International Patent Classification (IPC) or both national classification and IPC <div style="text-align: right;">G06F17/60</div>		
Applicant COLLINS, John, Raymond		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. ☒ The subject matter of the international application relates to:
 - a. ☐ scientific theories.
 - b. ☐ mathematical theories
 - c. ☐ plant varieties.
 - d. ☐ animal varieties.
 - e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
 - f. ☒ schemes, rules or methods of doing business.
 - g. ☐ schemes, rules or methods of performing purely mental acts.
 - h. ☐ schemes, rules or methods of playing games.
 - i. ☐ methods for treatment of the human body by surgery or therapy.
 - j. ☐ methods for treatment of the animal body by surgery or therapy.
 - k. ☐ diagnostic methods practised on the human or animal body.
 - l. ☐ mere presentations of information.
 - m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.

2. ☐ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☐ the description
☐ the claims
☐ the drawings

3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer María Rodríguez Nóvoa
--	--

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The subject-matter claimed in claims 29-32 and 37 falls under the provisions of Article 17(2)(a)(i) and Rule 39.1(iii) PCT, such subject-matter relating to a method of doing business.

Claims 1-28 and 33-36 relate to commonplace technological features for performing the business method of the method claims. Although these claims do not literally belong to the method category, they essentially claim protection for the same commercial effect as the method claims. With reference to the Guidelines, B-VIII, points 1-6, the International Searching Authority considers that searching such commercial features would serve no useful purpose. This applies to the remaining commonplace technological features of these claims as well.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.